

WHAT IS CLAIMED IS:

1. A method of completing a well having a branch wellbore extending outwardly from a window in a parent wellbore, the method comprising the steps

5 of:

positioning an assembly in the window; and
swelling a sealing material on the assembly, so that a first seal is formed
between the assembly and the window.

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2. The method according to claim 1, wherein the swelling step further comprises increasing a volume of the sealing material.

3. The method according to claim 1, wherein the positioning step
15 further comprises positioning the assembly at least partially in the parent wellbore and at least partially in the branch wellbore.

4. The method according to claim 1, wherein the assembly is a tubular string, and wherein the positioning step further comprises deflecting the tubular
20 string from the parent wellbore into the branch wellbore.

5. The method according to claim 4, further comprising the step of providing fluid communication between an interior of the tubular string and the parent wellbore via an opening formed through a sidewall of the tubular string.
- 5 6. The method according to claim 5, wherein the swelling step further comprises forming a second seal between the tubular string and the parent wellbore.
- 10 7. The method according to claim 6, wherein the swelling step further comprises forming the first and second seals on opposite sides of the opening.
8. The method according to claim 1, wherein in the swelling step, the sealing material is a rubber compound.
- 15 9. The method according to claim 1, wherein the swelling step further comprises swelling the sealing material in response to exposing the sealing material to hydrocarbon fluid in the well.
- 20 10. The method according to claim 1, wherein the swelling step further comprises swelling the sealing material in response to exposing the sealing material to water in the well.

11. A completion system for a well having a branch wellbore extending outwardly from a window in a parent wellbore, the system comprising:

a tubular string having a portion positioned within the window; and
a sealing material on the tubular string portion, the sealing material
swelling in the well to thereby form a first seal between the tubular string portion
and the window.

12. The system according to claim 11, wherein the sealing material swells in response to exposure to hydrocarbon fluid in the well.

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13. The system according to claim 11, wherein the sealing material swells in response to exposure to water in the well.

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14. The system according to claim 11, wherein a volume of the sealing material increases as the sealing material swells.

15. The system according to claim 11, wherein the tubular string portion extends within the parent wellbore, the sealing material forming a second seal between the tubular string portion and the parent wellbore.

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16. The system according to claim 11, wherein the tubular string portion has an opening formed through a sidewall thereof, the opening providing

fluid communication between an interior of the tubular string and the parent wellbore.

17. The system according to claim 16, wherein the opening is
5 positioned between the first seal and a second seal formed by the sealing material
between the tubular string portion and the parent wellbore.

18. The system according to claim 11, wherein the sealing material is a
rubber compound.

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19. The system according to claim 11, wherein the tubular string
extends into the branch wellbore below the window, and wherein the tubular
string extends in the parent wellbore above the window.

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20. The system according to claim 11, wherein the sealing material is a
coating applied externally to the tubular string portion.

21. A method of completing a well having a branch wellbore extending outwardly from a window in a parent wellbore, the method comprising the steps of:

positioning an assembly in the parent wellbore;
5 forming an opening through a sidewall of the assembly;
aligning the assembly with the window; and
swelling a sealing material on the assembly, so that a first seal is formed about the opening.

10 22. The method according to claim 21, wherein the forming step is performed after the positioning step.

23. The method according to claim 21, wherein the forming step is performed before the positioning step.

15 24. The method according to claim 21, wherein the forming step is performed after the swelling step.

20 25. The method according to claim 21, wherein the forming step is performed before the swelling step.

26. The method according to claim 21, wherein the aligning step further comprises aligning the opening with the window.

27. The method according to claim 21, wherein the swelling step further 5 comprises forming the first seal between the assembly and the parent wellbore circumferentially about the window.

28. The method according to claim 21, wherein the swelling step further comprises forming the first seal between the assembly and circumferentially 10 about an end of a tubular string positioned in the branch wellbore.

29. The method according to claim 21, wherein the swelling step further comprises increasing a volume of the sealing material.

15 30. The method according to claim 21, further comprising the step of externally securing the sealing material on a tubular structure, and wherein the swelling step further comprises forming the first seal to provide a sealed flowpath between the branch wellbore and an interior of the tubular structure.

20 31. The method according to claim 30, wherein the swelling step further comprises forming a second seal between the tubular structure and the parent wellbore.

32. The method according to claim 31, wherein the second seal forming step further comprises forming the second seal above the window.

5 33. The method according to claim 31, wherein the second seal forming step further comprises forming the second seal below the window.

34. The method according to claim 21, wherein in the swelling step, the sealing material is a rubber compound.

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35. The method according to claim 21, wherein the swelling step further comprises swelling the sealing material in response to exposing the sealing material to hydrocarbon fluid in the well.

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36. The method according to claim 21, wherein the swelling step further comprises swelling the sealing material in response to exposing the sealing material to water in the well.

20 37. The method according to claim 21, wherein the aligning step further comprises engaging a latch of the assembly with an orienting latch profile.

38. A completion system for a well having a branch wellbore extending outwardly from a window in a parent wellbore, the system comprising:

an assembly positioned in the parent wellbore, the assembly having an opening formed through a sidewall thereof, the opening being aligned with the
5 window; and

a sealing material on the assembly, the sealing material swelling in the well to thereby form a first seal circumferentially about the opening.

39. The system according to claim 38, wherein the sealing material
10 swells in response to exposure to hydrocarbon fluid in the well.

40. The system according to claim 38, wherein the sealing material swells in response to exposure to water in the well.

15 41. The system according to claim 38, wherein a volume of the sealing material increases as the sealing material swells.

42. The system according to claim 38, wherein the sealing material forms a second seal between the assembly and the parent wellbore.

43. The system according to claim 38, wherein the first seal is formed between the assembly and the parent wellbore circumferentially about the window.

5 44. The system according to claim 43, wherein the first seal is formed between the assembly and an end of a tubular string positioned in the branch wellbore.

10 45. The system according to claim 38, wherein the sealing material is a rubber compound.

46. The system according to claim 38, wherein the assembly includes a tubular structure, and wherein the first seal provides a sealed flowpath between the branch wellbore and an interior of the tubular structure.

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47. The system according to claim 46, wherein the sealing material is a coating applied externally to the tubular structure.